



The Raleigh Amateur Radio Society's **EXCITER**

GET INVOLVED

- RARS General Membership meeting: Second Tuesday of the month.
- The RARS net meets every night except Saturday @ 8 p.m. on 146.640.
- The RARS Technical & Trader's net: Saturdays @ 8:00 PM on 146.64.
- ~~RARS meets for a monthly dinner on the First Tuesday of each month.~~



PUBLIC SERVICE EVENTS

Interested in helping? Visit
<https://www.rars.org/public-service.php>

frequently for our 2020
ham public service
schedule.

RARS General Meeting:

Presentation Topic: Antenna Tuners

Presenter: Doug Hall, K4DSP

Date: September 8, 2020

Time: Meeting at 7:30 PM, informal
gathering at 7PM on Zoom.

Where: Zoom, info will be sent by email

July 2020 Net Summaries

RARS Net

Checkins: 556
Minutes: 1189
Sessions: 31

10 Meter Net

Checkins: 10
Minutes: 47
Sessions: 1

August 2020 RARS Net Summary

Checkins: 494
Minutes: 1140
Sessions: 31

Virginia Enzor NC4VA
RARS Net Manager

RARS Officers

PRESIDENT

John Honeycutt
N8ZU
919.417.2477
jfh49@bellsouth.net

VICE PRESIDENT

Tom Lewis
N4TL
N4TL2@yahoo.com

SECRETARY

Mark Kilmer
KM4JRH
919.676.0110
mark.kilmer@gmail.com

TREASURER

Greg Seamster
KE4PAX
919.859.0029
KE4PAX@arrl.net



The Raleigh Amateur Radio Society

The Raleigh Amateur Radio Society, Inc. (RARS) was founded in 1969 and continues to serve and support the amateur radio community in the greater Triangle area. In 1999, the society incorporated a new RARS and obtained 501(c)(3) non-profit tax status.

The objectives of the club are to promote worldwide friendship through amateur radio; to be of public service by providing radio communications in times of disaster, emergency, or civic needs; to educate members in radio technique, and to provide training classes to assist in obtaining amateur radio licenses.

Anyone interested in amateur radio is eligible to apply for membership. Dues for regular licensed amateurs are \$18 per year (from July 1 through June 30). Additional immediate family members pay \$5 each per year. Dues for licensed amateurs older than 59 or younger than 16 are \$12 per year. Dues for non-licensed associate members are \$9 per year. Applications for membership may be obtained from the treasurer or on the RARS website.

<https://www.rars.org>

Exciter

The Exciter is the official newsletter of the Raleigh Amateur Radio Society. It appears each month as a PDF on the RARS website at www.rars.org. Members receive email notification when the latest version is available. Please provide your email address to the Treasurer.

The Exciter welcomes articles, advertisements, and other contributions. To submit a piece to the newsletter, please contact the Editor. The Editor reserves the right to edit any and all pieces. The submission deadline for each month's Exciter is the Saturday that is ten days before the general meeting. All submissions must be final. Drafts are not accepted.

The views expressed in the Exciter are those of the individual authors and do not necessarily reflect the views of the Editor or RARS.

Tom Lewis, N4TL, editor (editor@rars.org)

August 15, 2020 RARS meeting

Your ARRL Board Members

Roanoke Division

Sections: North Carolina · South Carolina · Virginia · West Virginia

George W. "Bud" Hippisley, W2RU, DIRECTOR

981 Circle Creek Road

Penhook, VA 24137

540-576-2527, w2ru@arrrl.org

Bill Morine, N2COP, VICE DIRECTOR

101 Windlass Dr.

Wilmington, NC 28409-2030

(H) 910-452-1770

(C) 910-367-1758, N2COP@arrrl.org



Marv Hoffman, WA4NC, ARRL
Section Manager. Spoke a few
minutes about the ARRL.

<https://www.arrrl.org/>

August 15, 2020 RARS meeting

The presentation was Introduction to the NanoVNA by Dan Marks, KW4TI



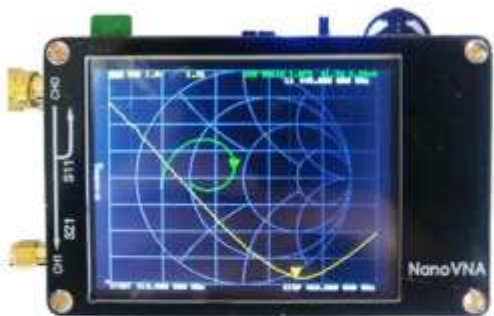
The full presentations is at this URL.

<https://www.rars.org/excitors/2020/NanoVNA-explanation.pdf>

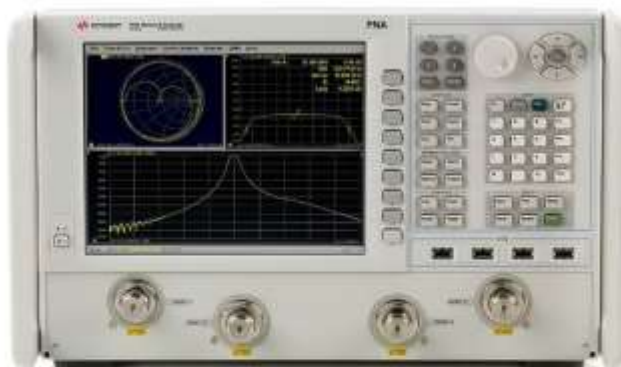
Software that works with the NanoVNA is at this URL.

https://nanovna.com/?page_id=90

VNA: **V**ector **N**etwork **A**alyzer



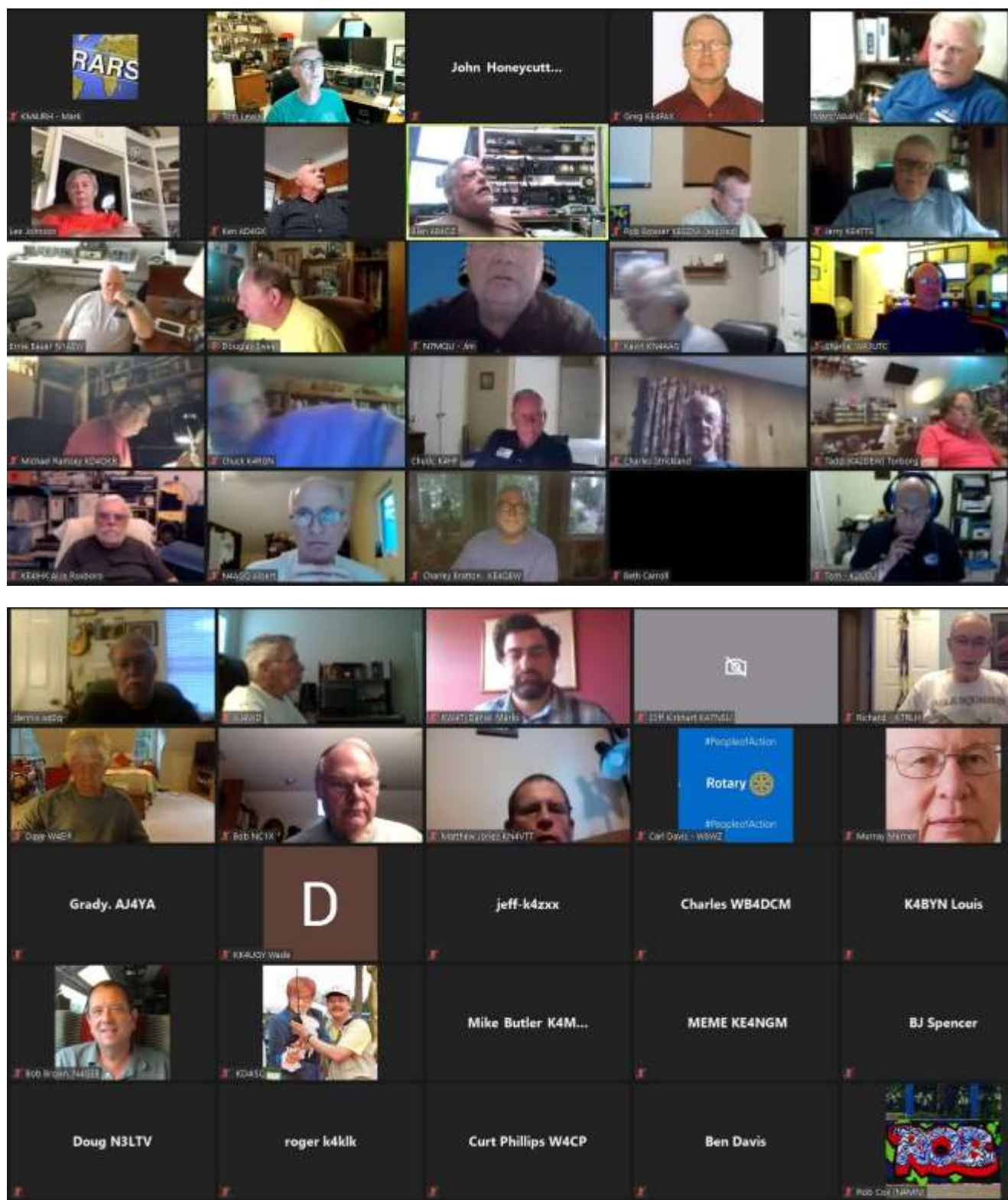
NanoVNA about \$60 on e-bay/Amazon/Aliexpress



Keysight N5222A, \$150,000 to \$200,000 (this does a lot more, however)

Having an affordable VNA is a **great boon** to amateurs! It puts great capability, much more than a simple antenna analyzer, in the hands of hams. It is like the "multimeter" of radio engineering.

August 15, 2020 RARS meeting, continued



Screen capture during the Zoom meeting

Future RARS Meeting Topics

Titles, topics, and speakers subject to change.

ate	Topic	Presenter
10/13/2020	RARS Officers nominations and Show and Tell via Zoom	Election committee & members
11/10/2020	RARS Officers election and The IEEE MOVE truck: a mobile Communications & Power platform for disaster response. https://move.ieeeusa.org/	Election committee & Jay Diepenbrock, KM4EP
12/8/2020	RARS Officers induction & N3FJP field day Logging software via Zoom	Election committee & N4TL playing video

Notice that the show and tell has been moved to October 2020. We are going to use Zoom for that meeting. If you want to show something, you need to think about how you will put it in front of your camera. If its small you can just hold it up. If its big you probably will have to hold the camera in front of it. Before the meeting do a test with Zoom. Start a Zoom New Meeting and turn on your camera. Look at how the camera shows your item.

During all of our Zoom meetings please edit your name so your call is shown. Do a right click on your own image and choose rename. Add your call after your name. Thanks.

The next few meeting of RARS will be held using Zoom at 7:30PM. Zoom is a conferencing application that runs on computers, tablets and phones. The meeting ID will be sent out to everyone via email.

Quick start guide for new Zoom users

https://support.zoom.us/hc/en-us/articles/360034967471-Quick-start-guide-for-new-users#h_b0c98dfa-d90f-486d-9617-71ab7b41a273

Zoom help center

<https://support.zoom.us/hc/en-us>

RARS Birthdays

Dave	KK4BPM	09/02
Ryan	KM4KRV	09/02
Jack	K4WFJ	09/02
Jimmie	KM4DJR	09/02
Daryl	KX4WY	09/03
Andy	KD4FHF	09/04
Michael Gunter		09/04
Ronnie	KN4UFL	09/05
Mary Jo	K4MJL	09/05
Lou	K4BYN	09/07
Justin	KO4FTZ	09/14
Robert	W4MBD	09/16
Bob	AK4TT	09/17
Ken	N4ZBB	09/18
Bill	K4TF	09/19
Charles	W2WNC	09/20
Rod	KI4LSN	09/20
Sam	KN4RWI	09/22
Justin	AJ4MJ	09/25
Steve	KI4YXJ	09/25
David	AB4MB	09/26
Leon	KB4KSA	09/27
Tom	N3RI	09/29
Wally	KJ4UKV	09/30

New Members

Ada Mancini	KO4FYK
Brian Lehrschall	KO4FIY
Jon Youngblood	KI6BHF
Jeremiah Vanderneut	KC0WDZ
Tony Hall	KO4EBO

*Everyone is
welcome!*



Every Thursday there is a “**Taco Thursday**” Lunch at the Taco Bell, 7036 Knightdale Blvd, Newbern Ave. (Business 64) in Knightdale. We eat outside so bring a chair and Join the Tailgate Party. Weather permitting.

Once in a while a **Free Hamfest** is held at the Pleasant Valley Shopping Center. To find the next date go to the entry for AB4OZ in QRZ.COM. Alan posts the information there.

New Members

Justin Diana	KO4FTZ
Joe Spears	AF1E
Ben Thedieck	KO4GKH
Robert Munilla	
Hugh Cashion, Jr.	KD4WJD
Michael Gunter	K0HCZ

Taco Thursday August 6, 2020



Left to Right, Tom Lewis, N4TL; Chuck Littlewood, K4HF; Ernest Spencer, K4NKR; Glenn Clary, NC4NC; Bob Chapman, NC1X, Alan Pitegoff, AB4OZ; David Guthrie, WA4DAG; Joseph Owen, K4HEW; Johnnie Mayfield, WA9SZL ; Dennis Mason, WZ0Q.



Left to Right around the circle, Dennis Mason, WZ0Q, David Guthrie, WA4DAG; Mark Kilmer, KM4JRH; Tom Lewis, N4TL; Chuck Littlewood, K4HF; Ernest Spencer, K4NKR

RARS Field Day Intra Club Competition Results

Despite the best efforts of the coronavirus, RARS had a very successful Field Day Intra Club Competition. There were a total of 28 entries spread out over 6 different classes. RARS racked up a final aggregate score of 16,096!

The winners in each class were:

Dick Orander, KD4ISC	Class 1B1	354 points
John Brier, KG4AKV	Class 1B1 (Battery)	406 points
Mike Murphy, WA4BPJ	Class 1D	1166 points
Dan Marks, KW4TI	Class 1E	1314 points
Bob Starkenburg, W4TTX & Marty Young, W4MY	Class 2B2	2930 points
Chuck Till, K4RGN	Class 3D	1742 points

The winners will get a nice bit of wall paper to hang in their shacks.

As you can see from the complete list of entries, most folks operated as 1D, with 1E taking second in terms of popularity. Al Sutton, N4EII, Louis Alexander, K4BYN, and Mike Murphy, WA4BPJ were in a tight race for first place in the 1D class. Only 40 points separated them. Carl Davis, W8WZ and Dan Marks, KW4TI were also neck and neck with Dan edging out Carl for the winning score. It should be noted that Dan used FT8 exclusively to rack up the winning total!

We had 5 entries in the 1B class - 2 as 1B1 (portable, single operator, generator powered), and 3 as 1B1 battery powered. Dick Orander, KD4ISC took first place in 1B1 with Mark Kilmer, KM4JRH a close second. John Brier, KG4AKV, took first in the 1B1 Battery powered class.

Your truly, W4TTX, along with Marty Young, W4MY, operated along the pristine shores of Jordan Lake as the lone 2B2 station (portable, 2 operators, 2 transmitters, generator powered). The weather was about as perfect as it could be for late June in North Carolina. Aside from almost being busted by the Park Police (something about needing a permit and questioning whether we were transmitting for commercial purposes) we had a large time and managed to accumulate 2930 points in a combination of phone and CW. A bit of explaining got us out of the predicament with the Park Police, but we were left wondering if RARS would have covered our bail.

And last, but certainly not least, is Chuck Till, K4RGN, operating as 3D (with all but 8 of his contacts via FT8 and FT4), coming in with a score of 1742. I am trying to imagine a single operator running 3 transmitters simultaneously - each hand on a different keyboard answering digital QSOs while talking, presumably by Vox, on the phone band). Chuck - I wish you would have recorded a video of that - Hi Hi.

I want to thank everyone who participated in our little experiment this year. Hopefully next year things will be back to normal!

The full list of operators and their scores are on the next page.

Bob Starkenburg, W4TTX

RARS Field Day 2020 continued

Name	Call Sign	Class	Score
Mark Kilmer	KM4JRH	1B1	292
Dick Orander	KD4ISC	1B1	354
Jay Diepenbrock	KM4EP	1B1B	152
Rick Ivey	KN4ORA	1B1B	272
John Brier	KG4AKV	1B1B	406
Greg Seamster	KE4PAX	1D	56
Tony O'Connor	K1OC	1D	66
Sam Robinson	KN4RWI	ID	168
Doug Wall	N3LTV	1D	234
Tom Lewis	N4TL	1D	270
Curt Phillips	W4CP	1D	330
Brantley West	K4CBW	1D	480
Al Sutton	N4EII	1D	1126
Louis Alexander	K4BYN	1D	1130
Mike Murphy	WA4BPJ	1D	1166
Dennis Mason	WZOQ	1E	120
Ken Estep	KN4AAG	1E	190
Finn Gold	NC4FG	1E	202
John Honeycutt	N8ZU	1E	214
Dennis Keith	NC4DK	1E	236
Roy Philemon	KT4EM	1E	256
Ken Latchum	AD4GX	1E	332
Charles Swindell	WB4DCM	1E	396
David Crawford	KF4VXJ	1E	404
Carl Davis	W8WZ	1E	1258
Dan Marks	KW4TI	1E	1314
Bob Starkenburg & Marty Young	W4TTX	2B2	2930
Chuck Till	K4RGN	3D	1742
Grand Total			16096

From Bob Starkenburg, W4TTX

Interesting Websites and Information

Small “Magnetic” Transmitting loop for 80-20 meters

From Louis Alexander, K4BYN.

https://www.nonstopsystems.com/radio/frank_radio_antenna_magloop.htm

Audio Tools

soundcard Oscilloscope.

From Charles Strickland,

https://www.zeitnitz.eu/scope_en

Audio Spectrum Analyzer.

<https://www.qsl.net/dl4yhf/spectral1.html>

Soundcard Oscilloscope is a good audio time domain and frequency domain scope. It also has audio generators.

The Radio Amateur Society of Australia Inc.

From Charles Strickland,

<https://vkradioamateurs.org/qtc-e-magazine/>

<https://www.qtcmag.com/>

Membership Renewal Reminder

Use the following link to renew your membership – <https://www.rars.org/joinrars.php>.

Thank you if you have already renewed your membership for the 2020/2021 membership year.

Use the following link to verify your membership data - <https://www.rars.org/roster.php>.

73, Greg KE4PAX

<https://www.rars.org>

Deepest Sympathies



A transfer of \$50 has been made to the RARS / Dick Bitner Youth Education fund in memory of William Mirl Austin W4WMA (August 22, 1937 – August 2, 2020)

<https://www.cremnc.com/obituary/william-austin>

Exciter Software

I have been asked a number of times what is the software used to do the Exciter. It is Microsoft's Publisher program. Along with Word, Paint and Notepad. Many times when I copy and paste from an email, the format is not good. When that happens I will first paste into Notepad to remove all the formatting. Then copy and paste from Notepad to Publisher.

Almost all pictures in the Exciter are cropped. I use Paint to that.

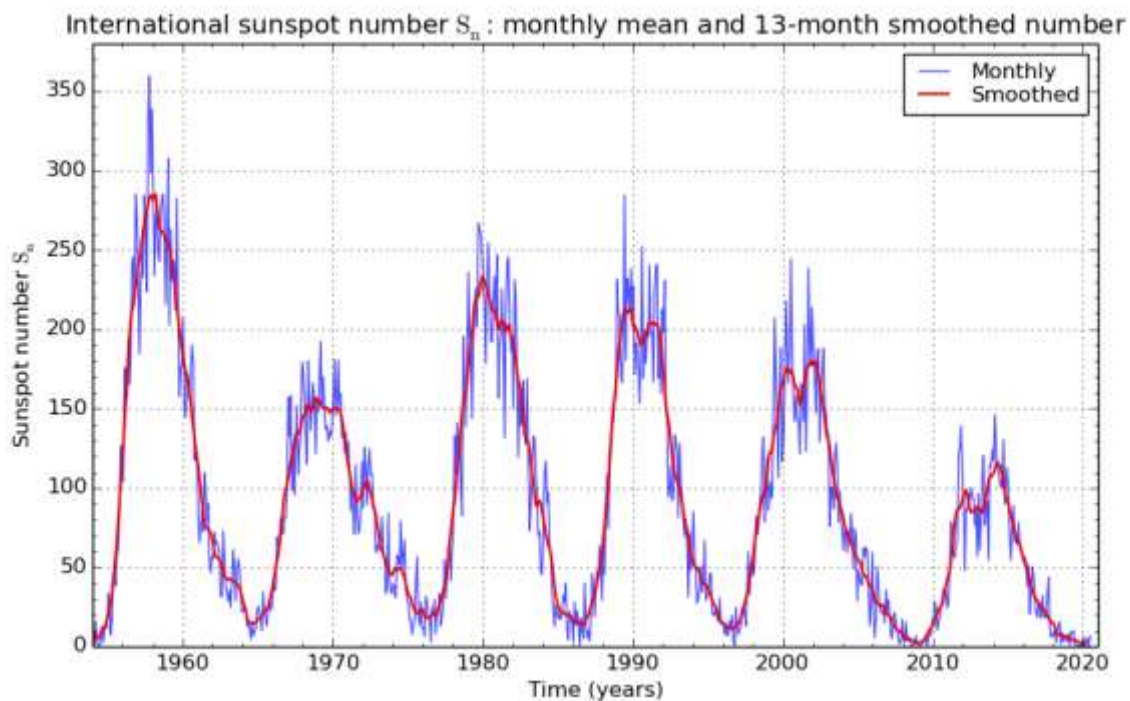
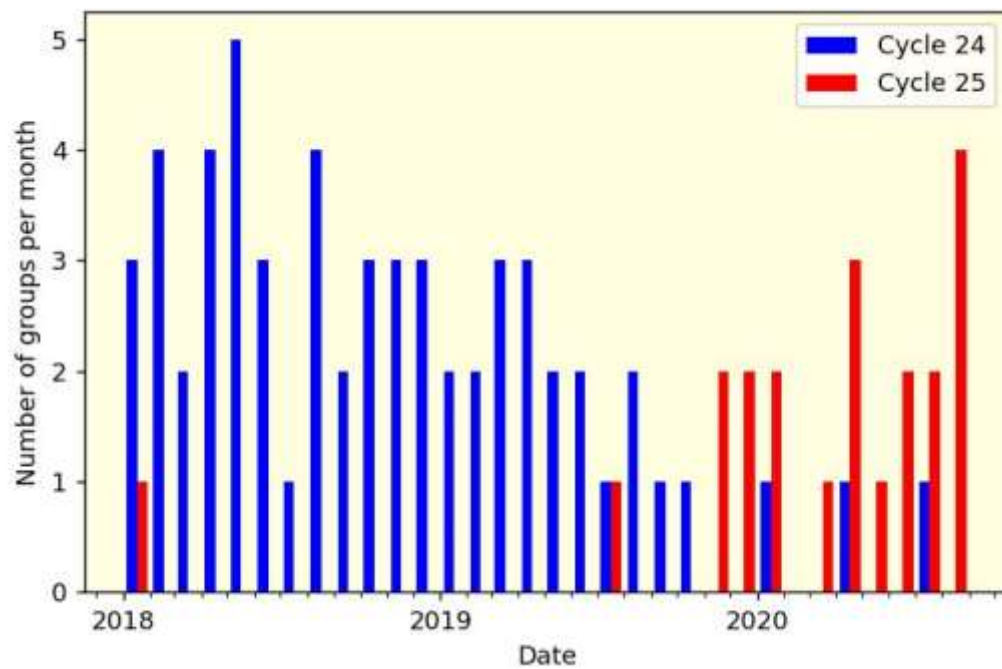
When the birthdays and new members arrive, I want to keep the formatting. I will copy and paste to Word first. Modify the font and spacing so the tables look good. Then copy and paste to Publisher.

More text can be put on a page by using multiple columns, but readers like the Exciter without them. Its also easier for me.

73 Tom N4TL

<https://www.rars.org>

According to this website, the Solar cycle minimum passed in December 2019



SILSO graphics (<http://sidc.be/silso>) Royal Observatory of Belgium 2020 August 1

<http://www.sidc.be/silso/>

RARS Classifieds

Copied from <https://www.rars.org/classifieds.php>

The items below were listed within the last 30 days on the RARS website.

Misc. Ham Radio Gear - 1 updated

Posted September 1st, 2020 by: **K4HF**

Contact: k4hf@arrl.net

Eton Solarlink Weather Alert Radio Mod. ARCFR360, as new \$20

Several Drake, etc 1KW HF Low Pass Filters, as new ea. \$5

Several Kenwood H/T Alkaline Battery cases, B-8, B-11, MBT-1 ea \$5

Autek VA-1 Rx Vector Analyst \$35

Pyramid Gold Series PS-8K, 13.8VDC 6-8Amp power Supply \$15

A 2 Meter 19" Mag Mount mobile antenna with cable/conn., ea. \$10

ICOM SM-20 8 pin Base Mike, as new - \$105

EF Johnson mobile mike, multiple pin connector - \$5

Motorola HM N-4069E mobile mike w/RJ-45 connector - \$5

Several RF Receiver Pre-Amplifiers, 25 MHz to 1 GHZ, ea. - \$5

Contact me by e-mail, preferred, or (919) 872-6555 Thanks, Chuck

Misc. Ham Radio Gear - 2 updated

Posted September 1st, 2020 by: **K4HF**

Contact: k4hf@arrl.net

ICE Model 309 Balanced Line Arrestor; 1KW PEP, 1.5-60MHz, 300-600 ohms - \$25

MFJ 931 Artificial Ground System - \$45

Bell Merit DX450L digital VOM - \$39

RARS Classifieds continued

Copied from <https://www.rars.org/classifieds.php>

The items below were listed within the last 30 days on the RARS website.

GE 8 amp RF Wattmeter - \$5

HQ-1 1:1 HF Antenna Balun - \$15

Kenwood H/T Alkaline Batt. cases,new, BT-11, BT-8, MBT-1, ea. \$5

Van Gordon Hi-Q 1:1 Balun - \$15

RARS 25th Anniv coffee mugs - 2, ea. \$5

Six Meter wire 1/2 wave dipole w/ 30' RG8X - \$15

10/20 Meter wire fan dipole w/ 1:1 Balun - \$25

RF Parts Co. RFA-4005 Crimping Tool - \$55

SullStar Tech Platium Tools EZ-RJ PRO-HD Crimping Tool - \$35

RF Coaxial Switch w/3 N connectors - \$10

Paladin Sure Punch PRO Termination Tool - \$20

Yaesu MH-31 Dynamic Hand Mike w/RJ-45 Connector - \$20

Kenwood SP-50B Mobile Speaker - \$10

Heath 2 Meter FM Power Amp HA-202A 5/40 Watts - \$20

Lunar Electronics 2 Meter Power Amp 10-80 10/80 Watts - \$40

MFJ -418 Morse Code Tutor/Trainer - \$40

Contact me by E Mail, preferred, or (919) 872-6555 Thanks, Chuck

RARS Classifieds continued

Copied from <https://www.rars.org/classifieds.php>

The items below were listed within the last 30 days on the RARS website.

Diamond 220 mhz antenna

Posted August 31st, 2020 by: **WZ0Q**

Contact: wz0q@outlook.com

Diamond NR140BNMO 220mhz Antenna

220mhz antenna, like new. 36",3.8db Max power 100 watts. Colapseable.

New price was \$46.95, asking \$25.00

Dennis, wz0q 919-413-5998

QYT KT8900 Dial band mobile

Posted August 29th, 2020 by: **WZ0Q**

Contact: wz0q@outlook.com

QYT kt,8900 Dualband mobile,2mtr/70cm. Radio,manual power cable mic and Programming cable. 25/20 watts.

Asking \$55.00 919-413-5998 Or email me.

2-Micranta Power supplies

Posted August 28th, 2020 by: **WZ0Q**

Contact: wz0q@outlook.com

2 micranta regulated Power supplies. 13.8vdc 2.5 amps.

Asking \$5.00 Each. Call 919-413-5998

Or email me. Dennis

RARS Board Meeting Minutes – July 21, 2020

Ridge Road Baptist Church

2011 Ridge Road

Raleigh, NC

* This meeting was conducted over Zoom

John Honeycutt opened the meeting at 7:00 PM.

The following were in attendance:

Members:

John Honeycutt - N8ZU

Tom Lewis - N4TL

Greg Seamster - KE4PAX

Mark Kilmer - KM4JRH

Chuck Littlewood - K4HF

Carl Davis – W8WZ

Hank Montgomery – K4HM

Joe White - WA4GIR

Tadd Torborg – KA2DEW

Alan Pitegoff - AB4OZ

A quorum was present and the previous meeting minutes were approved.

Officer/Committee Reports:

President: - John Honeycutt

Added a link for the agenda for next month. Greg questioned the methodology of visitors being able to attend the meetings. Carl noted that there is a link on the RARS

RARS Board Meeting Minutes continued

website to e-mail John for the login information. * John asked Joe White to address plans to plans to do VE testing remotely.

Treasurer: - Greg Seamster

Noted that the login information for club and BOD meetings are set up with the same links and passwords, and are scheduled through the end of the year. Reviewed the budget information for the last fiscal year. We currently have 320 members and 123 have not renewed. Sent out an e-mail with the link to a .pdf of the ARRL 3rd Edition Technician Handbook. Carl noted that the 4th Edition is the latest and there is now a second 4th Edition to correct errors. the ARRL is out of stock at the moment. Noted that Mark is handling accounting for club patches.

Vice President: - Tom Lewis

Club meetings are set up for the next 3 months.

RARS VE Coordinators

Joe discussed the problems with remote testing, but indicated he is looking into the possibility, using available software. Mid August is a possibility, but no commitment.

Education Director: - Carl Davis

Carl received notice from WCPSS indicating that Continuing Ed classes have been canceled. He indicated the problems associated with trying to do an on-line class. The club will plan to do a public spring class based on the current situation with WCPSS at the time.

Field Day Chair: - Bob Starkenburg(Absent)

John reminded everyone to get their FD scores into Bob. Several people had issues with N1MM and the suggestions were made to have better information available next year.

RARS Board Meeting Minutes continued

Repeater Chair: – Chuck DeCourt (Absent)

Danny is still looking for a reasonably priced rigger for the 146.640 upgrade. Performed site surveys and found the battery/batteries at the 145.130 site are bad.

Exciter Editor: - Tom Lewis

Any item for the next Exciter is due by August 1st.

Director at Large: – Alan Pitegoff

Alan suggested that even after the church reopens, the club wait a month before resuming on-site meetings. Suggested finding out how many are interested in doing Show & Tell for the October meeting, and how to go about it. Carl thinks that a phone tour would work. The taco activities are not being advertised as RARS events, because of the liability. Information is posted on Alan's QRZ page. Alan and Chuck Littlewood mentioned looking for people to be nominated, particularly for *RARSfest*, for the upcoming year, and the possibility of needing some replacements before year end.

ARRL Liaison: - Chuck Littlewood

Suggested that people should subscribe to Marv Hoffman's newsletter. The annual donation to the ARRL has been received by them.

Webmaster: - Hank Montgomery

Everything is set in place until we start having changes as to where and when we are going to start having people being able to get together. Replaced the old Public Service stars page with the new page. Currently working on a program to allow Brian to better manage the new page.

Director at Large: Tadd Torborg

TARPN nets are still Trial and Tribulation. Need to establish more node redundancy. Mentioned that some used data center batteries are available for sale.

RARS Board Meeting Minutes continued

Existing Action Items:

Alan Pitegoff:

Will discuss the methodology of continuing the Zoom meetings after we resume normal on-site meetings.

Contact Crabtree Valley Mall.

Bob Starkenburg:

Bob Starkenburg will resend an e-mail noting classes for N1MM.

John Honeycutt:

Contact Marv to check his schedule and let him know we would like him to speak.

Greg Seamster:

Reach out to Jeremy for status of vest order and Marty to check on Field certificates. Also suggested gold seals for the FD certificates.

New Action Items:

John Honeycutt:

Contact Marv Hoffman to request that he make a few comments at the next club meeting.

Send an e-mail to each individual who has not renewed from last year.

Continue to follow up with the church for status.

Tom Lewis:

Send e-mail to see who wants to participate in the Show & Tell.

Joe White:

Continue to look at various methods to perform VE testing.

RARS Board Meeting Minutes continued

Greg Seamster:

Continue to send renewal notification e-mails.

Alan Pitegoff:

Work with Chuck DeCourt to replace batteries in the 145.130 repeater.

John Honeycutt adjourned the meeting at 8:13 PM

Meeting Minutes submitted by Mark Kilmer, KM4JRH;
Secretary, Raleigh Amateur Radio Society

RARS Membership Meeting – August 11, 2020

* Ridge Road Baptist Church
2011 Ridge Road
Raleigh, NC

The normal club meeting space remains closed, due to the COVID-19, "Stay at Home Order." The meeting was conducted using the Zoom video conferencing software.

The meeting was opened by President John Honeycutt (N8ZU), at 7:30. John requested that all attendees add their Callsign to their Zoom display name.

The Pledge of Allegiance was recited.

John called for visitor introductions and those who had recent license upgrades.

Present were 2 visitors, 1 new licensee and 1 upgrade.

A quorum was present. July minutes were approved.

RARS Membership Meeting – Continued

Officer Reports:

President: - John Honeycutt

The RARS Board of Directors meeting will be one week from today. All members are invited. The meeting will be held at 7:00 PM, over Zoom. Login information may be obtained by request from John Honeycutt.

Vice President: - Tom Lewis

The September meeting topic will be “Antenna Tuners”, presented by Doug Hall (K4DSP). The October meeting will be the annual club Show and Tell. Officer nominations will also take place.

Treasurer: - Greg Seamster

Membership was at 435 at the end of the last fiscal year. (June). There are a number of members who have not yet renewed membership. The club has 11 new members since July 1. Greg also reviewed the budget.

Secretary: - Mark Kilmer

The new RARS shirt web site is up and shirt orders are now being filled. There is however, a 3 to 4 week delay in turn-around time. This due to COVID-19, which has affected the entire supply chain.

Director and Committee Reports:

Repeater Chair: Chuck DeCourt (Absent)

Alan Pitegoff (AB4OZ) has made visits to the Bayleaf and RTP repeater sites. The A/C has been replaced at the RTP site.

Field Chair: Bob Starkenburg (W4TTX)

Thanked all who participated in Field Day. The club had 29 participants in 6 classes with 16, 096 contacts. Winners will be announced at the September club meeting.

RARS Membership Meeting – Continued

Net Manager: Virginia Enzor (NC4VA)

Discussed the “Sixty Four on Six Four Award”, earned by making 64 unique contacts on the 146.640 repeater. An additional endorsement is offered by making contact with 64 “RARS” club members. Mike Butler (K4MBX) was recognized for not only having received the initial award, but achieving the additional endorsement as well. Mike was called on to give the club tips on obtaining the award. Award information can be found on the club website.

Additional Announcements:

Tadd Torborg (KA2DEW):

Noted the social radio nets associated with TARPNet (Terrestrial Amateur Radio Packet Network), a social, off-grid packet network over HAM radio. Information may be found at the site; ncpacket.net

Alan Pitegoff (AB4OZ):

Announced an upcoming Hamfest in the parking lot at Pleasant Valley Shopping Center. He also announced “Taco Thursday”, a luncheon for technical discussion and trading, selling or buying “stuff”, at Taco Bell in Knightdale. It takes place every Thursday at 11:30. See his QRZ page (AB4OZ) for details and updates.

Tonight's Program:

John Honeycutt introduced Marv Hoffman (WA4NC), ARRL Section Manager for NC. Marv gave an update on ARRL activities and noted the new ARRL magazine, targeted at new HAMS, (QEX). He also mentioned subscribing to his newsletter. and offered a Q&A session.

Tom Lewis introduced Dan Marks (KW4TI), for the nights presentation, “The NanoVNA”

John Honeycutt adjourned the meeting at 9:37 PM.

* Meeting minutes respectively submitted by Mark Kilmer (KM4JRH), Secretary, RARS.